

DETAILED ACTION

Response to Appeal

1. Upon further reconsideration, the new examiner vacates the previous final rejection and submits a new set of non-final rejections based on newly discovered prior art.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2- rejected under 35 U.S.C. 103(a) as being unpatentable over Gordecki (US 20040166890 A1) and further in view of Miyashita (6731912) and further in view of Andrews (6439905).

As per **claims 7,12,14,16** Gordecki discloses a mobile flip phone inherently comprising first/second housings in order to hold the phone circuitry, with one housing folding over the second housing to enable the disclosed 'flip' phone (para. 12). The examiner notes that a flip phone is a known device where a first housing is flipped up to enable a user to make a call (folded by a 'callable angle'). The hinge comprises a one-touch activation button (para. 34) and dampening means (springs) (para. 17). Gordecki discloses a hinge to perform the 'flip' function

around a center axis, but does not disclose an additional hinge portion to allow a phone housing to be rotated around the second hinge, and a flexible PCB coupling the housings and wrapped around the orthogonal hinge.

Miyashita discloses a flip phone with a two hinge system including a second orthogonal hinge (Figs. 10, 11) that allows one housing to rotate around the orthogonal hinge. Miyashita teaches that this allows the user to (Col 8) adjust the phone in a manner so as to directly align the microphone to the user's mouth. It would have been obvious to one of ordinary skill in the art at the time of this application to implement the additional pivotable orthogonal hinge in order to allow the user greater flexibility in order to align the phone microphone with his/her mouth. However, Gordecki in view of Miyashita does not specify the means of electrically coupling the two housings via the two hinges.

Andrews discloses flexible PCB that goes around flip phone hinges (abstract). It would have been obvious to one skilled in the art to implement the flexible pcb via the hinges for the purpose of providing the inherent electrical connection between the housings and associated circuitry.

As per **claim 2**, the examiner contends it would have been obvious to one skilled in the art at the time of this invention that the spring wound cam disclosed by Gordecki Fig. 4 could be implemented in a clickable fashion as an obvious design choice variation (such as the clickable one disclosed by Miyashita Fig. 5), and examiner further contends that the term 'click' read broadly could be read as the action of the Cam of Fig. 4 of Gardocki actuating against the member 420.

As per **claims 3-6**, they are disclosed in figures 10,11 of Miyashita. This housing reinforcement is inherent to supporting the disclosed combined hinge structure, and would also be obvious to implement in the hinge of Gordecki.

As per **claims 8,13,17** they are rejected as per the claim 7 rejection above.

As per **claims 9-11**, the angle different from the callable angle is the closed position.

Additionally, the examiner contends it would have been obvious to implement the alternative cam-click holding system disclosed by Miyashita Fig. 5 as a matter of design choice. The member 26 will hold the phone in locked positions (different from the calling position), and will still allow the phone to be closed (folded), and such the folding will provide enough force to overcome the free stop part (the free stop part will cease to work).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 571-272-7498. The examiner can normally be reached on M-F 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 571-272-7499. The fax phone numbers for the organization where this application or proceeding is assigned are **571-273-8300** for regular communications and **571-273-8300** for After Final communications.

/Alexander Jamal/

Primary Examiner, Art Unit 2614

Examiner Alexander Jamal

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